In the Specification:

Please amend the specification as follows:

Page 5, line 20, change "graphical user interface"

to -- graphical user interface 35--;

Line 22, change "fabrication data" to -- fabrication

data 21-- ;

Page 6, line 7, after "loaded" insert -- 41 --;

Page 8. Line 5, change "graphical user interface screen"

to -- graphical user interface screen 45--;

In the Claims:

Please cancel claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34 without prejudice or disclaimer to their underlying subject matter.

Please insert new claims 37 to 50 as follows:

-- 37.   A system for controlling a manufacturing production line using a virtual kanban system comprising:

a production scheduling model that includes a virtual kanban system, wherein the virtual kanban system outputs an electronic kanban, the electronic kanban representing a production routing schedule;

a database that stores the production scheduling model and production line feedback data, the production line feedback data further comprising a first data set that specifies equipment in the production line and a second data set that specifies at least one of operating status of the equipment, product lots status and production inputs status;

a simulator that simulates operation of the production line and determines validity of said electronic kanban, said simulator receiving as input the electronic kanban from the production scheduling model and the production line feedback data from the database, the simulator further

comprising a user interface;

wherein when the electronic kanban is determined valid by the simulator, the electronic kanban is output and a work schedule is generated. --

--38.   The system for controlling a manufacturing production line of claim 37, wherein said user interface is a graphical user interface.--

--39.   The system for controlling the manufacturing production line of claim 37, wherein when the simulator determines that the electronic kanban is invalid, a user is notified.--

--40.   The system for controlling the manufacturing production line of claim 37,wherein a kanban work schedule parameter based on the electronic kanban for each piece of said equipment in the production line which uses a production input is generated.--

--41.   A method for controlling a manufacturing production line using a virtual kanban system, the method comprising the steps of:

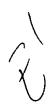storing production line feedback data in a database;

inputting said feedback data into a production scheduling model that includes the virtual kanban system and generating an electronic kanban;

inputting the electronic kanban and the feedback data to a simulator and simulating the manufacturing production line; and

determining the validity of the electronic kanban;

wherein the feedback data comprises a first data set specifying a type of equipment in the production line and a second data set specifying at least one of operating status of equipment, product lot status and production inputs status.--

--42.   The method of claim 41, wherein the feedback data is continuously updated.--

--43.   The method of claim 41, wherein upon determination that the electronic kanban is invalid, further comprising the step of notifying a user.--

--44.   The method of claim 41, further comprising the step of monitoring the consumption of production inputs.--

--45.   The method of claim 41, further comprising the step of ordering production inputs using the electronic kanban.--

--46.   The method of claim 41, further comprising the step of updating the second data set at a predetermined time interval.--

--47.   The method of claim 46, wherein the predetermined time interval is 3 hours.--

--48.   The method of claim 46, further comprising the steps of:
inputting the updated second data set into the production scheduling model; and
generating a revised electronic kanban.--

--49.   The method of claim 48, further comprising the steps of:
inputting the revised electronic kanban and the updated feedback data set into the simulator; and
simulating the manufacturing production line.--

--50.   The method of claim 49, further comprising the step of determining the validity of the revised electronic kanban.--